

## **Exhibit 9**

# **PLAINTIFFS' RESPONSE TO DEFENDANTS' MOTION TO EXCLUDE GENERAL CAUSATION TESTIMONY OF PLAINTIFFS' EXPERTS**

Case No.: 4:22-md-03047-YGR

MDL No. 3047

In Re: Social Media Adolescent Addiction/Personal Injury Products Liability Litigation

[ver en español >](#)

## What is Technology Addiction?

Technology is an integral and growing part of our lives. It is key for efficient functioning in many aspects of our lives and vital for social connection for many. Our smartphones are constant companions for many of us. However, excessive, compulsive or out-of-control use of various types of technologies is an increasing area of concern.

### What is Technology Addiction? | APA



Excessive and compulsive use of the internet or online activities can lead to negative consequences in various aspects of an individual's life. Technology addiction can potentially involve various forms of online activity including social media, gaming, gambling, problematic use of online pornography, and others.

- **Social media addiction** involves problematic and compulsive use of social media; an obsessive need to check and update social media platforms, often resulting in problems in functioning

and disrupted real-world relationships.<sup>1</sup>

- **Internet gaming disorder** refers to excessive use of online or video games, leading to neglect of responsibilities and physical health. (Read more about [Internet Gaming](#).)
- **Online gambling** is another area of growing concern. A wide variety of games and sports betting apps are increasingly readily available. Gambling functions are also incorporated into other online activities such as within online gaming activities. While gambling disorder is not new, the increased availability and easy access via phone or computer are raising new concerns. (Read more about [Gambling Disorder](#).)
- **Online shopping or auction addiction** involves an impulse, drive, or temptation to shop online and repeatedly acting on the impulse in a way that is harmful and leads to disruption in various areas of a person's life.<sup>1</sup>
- **Problematic use of online pornography** involves compulsive use of online sexual content, impacting personal relationships and mental well-being.

Some people may be particularly vulnerable, especially those with high levels of internet use for socialization, education, and entertainment. However, technology addiction is not limited to a specific demographic group, and it is increasing across diverse populations.

Children and adolescents may be particularly vulnerable to technological addiction because their brains are still developing.<sup>1</sup> For some children and teens, social media and video games play a significant role in the relationships and experiences that impact their growth, development and mental health, according to the American Academy of Pediatrics' Center of Excellence on Social Media and Youth Mental Health.<sup>2</sup> Excessive problematic use of social media and video games among children and adolescents "has the potential to develop into a behavioral addiction. This can have a negative impact on their psychological, physical, social, and developmental well-being."<sup>1</sup> It can lead to significant distress and contribute to other mental health conditions such as anxiety, depression and insomnia."<sup>1</sup>

## Symptoms

Symptoms of internet use disorders vary with different technologies but generally include an inability to control use of the technology, difficulties with personal and professional responsibilities, continuing to use the technology despite negative consequences, and continued problems over an extended period.

Just as with substance use disorders, people with a technological addiction may think obsessively about the behavior and they may experience withdrawal symptoms if access to the technology is cut off.<sup>3</sup> They may also require greater time or intensity in the technology use behavior to feel the same effects. In some circumstances, there may be physical symptoms such as eye strain,

headaches, and disrupted sleep.<sup>1</sup> It's important to note that the amount of time spent on a technology alone does not necessarily indicate problematic or compulsive use.<sup>1</sup> Also important is to consider whether a person's excessive focus on online activities may be related to another mental health condition. The problematic use of technology "may be a coping mechanism, maladaptive behavior, or a self-medication for an underlying psychiatric condition."<sup>3</sup>

A number of factors can contribute to the development of tech addiction, including psychological, social, and environmental factors. Individuals with preexisting mental health issues, such as depression or anxiety, may be more susceptible to developing internet use disorders as a coping mechanism. Social isolation, peer pressure, and a lack of in-person social connections can contribute to the reliance on online interactions. Additionally, the accessibility and convenience of the internet, especially through smartphones, play a role in the development of internet use disorders.

## Treatment and Prevention

Treatment and prevention of problematic technology use can involve a range of approaches. A first step is assessment and counseling from a mental health professional. Cognitive-behavioral therapy (CBT) is commonly used to address the underlying psychological factors contributing to addiction. Therapy may focus on helping the individual increase their awareness and understanding of their behaviors and develop healthy coping mechanisms and positive behaviors. Mindfulness techniques and motivational interviewing can also be useful.

It is also important to identify and address any coexisting mental health issues. Support groups (including 12-step programs) for technology addictions and family therapy are helpful for recovery for many individuals. The increase in the availability of online peer support and recovery groups has been helpful in addiction treatment as it makes connecting with others and getting support easily accessible and anonymous if desired.<sup>3</sup>

Preventive strategies for internet use disorders include raising awareness, especially among youth, about the potential risks associated with excessive internet use and implementing healthy strategies for use and time limits. In severe cases, a psychiatrist may suggest medications including antidepressants or stimulants to treat certain types of technology addiction.

## Healthy Social Media Use

### What is Social Media Addiction? | APAF



Social media has tremendous potential benefits, including supporting social connection and positive mental health. It also has significant potential negative impacts, including the potential for overuse or compulsive use. Being mindful of your social media habits and using your time and interactions responsibly can help ensure that you experience more of the good effects than the bad.

1. **Stay positive:** take time to consider the impact of your words and avoid engaging in toxic interactions.
2. **Limit screen time:** take regular breaks when using social media for extended periods and try to limit yourself to no more than a few hours a day. Families may consider using parental controls to limit access to certain social media apps, or the time spent on each app.
3. **Avoid “doomscrolling”:** stay conscious of how what you are seeing on social media is affecting your mood. If the content you are seeing is starting to make you feel envious, stressed, or depressed, it may be time to take a break.
4. **Protect yourself and others:** when using social media, always be mindful of privacy concerns and community standards. Never post sensitive personal information and report abusive behavior.

The Center of Excellence on Social Media and Youth Mental Health suggests three approaches to preventing problematic technology use among children and teens: balance, boundaries and communication.

- **Balance:** Families should discuss the right balance between online and offline time. There is no evidence for a specific screen time limit that applies to every child. However, families consider approaches ensuring children get adequate sleep, daily physical activity, time for play and reading and discovery, time with people they care about, and time to focus on learning without multitasking.
- **Boundaries:** Boundaries refers to setting limits around what youth are willing to display about themselves online or on social media, as well as setting limits on where youth spend their time online or when using tech. Discussing the types of personal information that are not appropriate to post on social media sites can help avoid online safety risks such as bullying, unwanted solicitation or embarrassment.
- **Communication:** Just as with other core areas of child health, parents and other trusted adults should discuss social media and technology with youth early and often. It is okay to not know the ins and outs of each platform; try to create a space where the child feels comfortable discussing their concerns and experiences using technology.

*(Adapted from Preventing Problematic Technology Use)*

Educational programs targeting parents, educators, and healthcare professionals can help identify early signs of addiction and provide support. Implementing guidelines for responsible internet use, both at home and in educational settings, can help to maintain a healthy relationship with technology.

The challenge going forward in the ever-changing landscape of technology is “how to best handle technology with an eye on maximizing its enormous potential for fulfillment, gratification, and happiness while minimizing its significant risks for dissatisfaction, misery, and despair.”<sup>3</sup>

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## Social Media: Protecting Youth Mental Health

Several recent national reports have focused on concerns around social media and youth mental health. These reports acknowledge that social media brings a range of potential benefits, such as social support, connection, and online companionship, as well as range of risks. They address issues such as exposure to “cyberhate” and harmful behaviors; impact on sleep; impact on time spent exercising, studying, and socializing; and potential harm to self-esteem and body image.

They also provide suggestions and recommendations for actions that a host of stakeholders can take to help protect youth and reduce the risk of psychological harm, including youth, parents and caregivers, schools, technology companies, health professionals, policymakers and researchers.

- Social Media and Youth Mental Health – U.S. Surgeon General Advisory, 2023
- Social Media and Adolescent Health – National Academies of Sciences, Engineering, and Medicine, 2023
- Health Advisory on Social Media Use in Adolescence, American Psychological Association, 2023

The Jed Foundation also issued recommendations in early 2024 for actions at the federal level for safeguarding youth well-being on social media.

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## Physician Review

James Sherer, M.D.

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Medical leadership for mind, brain and body.